

Chapter 4, lesson 55, Window ornament

In this lesson we will continue to build on our house model. We will create some details that will enhance the result once we get there. We will use mostly techniques that has been used before. We will use the reference image to decide on the shape of our ornament. Using reference is one of the most important and fundamental steps for a 3D artist. It is very hard for us to know in our head how something looks.

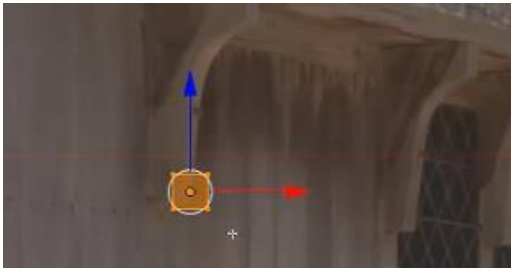
Chapter 4, lesson 55, Window ornament

In this lesson we are going to create the wood ornaments that is holding up the second floor of the building. It involves some simple modelling, like what we did for the ornaments above the doors. This time though the ornaments will be less curvy to not draw to much attention.

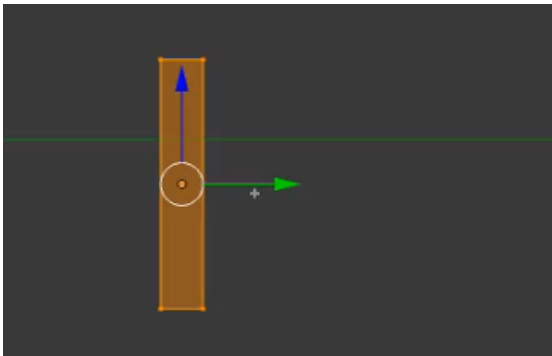
We will start by making one of them and then use the array modifier to duplicate them. We will apply the modifier so that we can place them on different distances from each other.

Start by going to the third layer and add a cube through the add menu or by hitting “**shift+a**” go to mech and select cube.

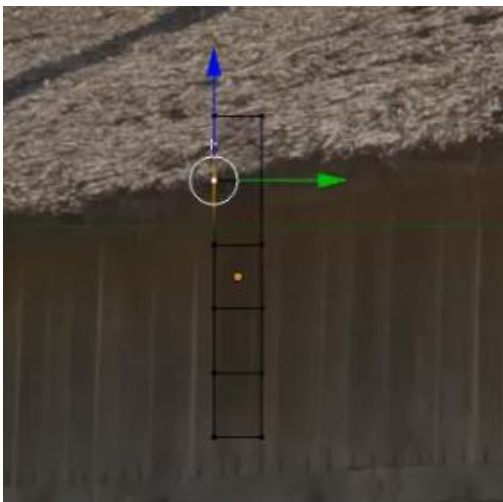
Go to edit mode and scale the cube down to a small size roughly matching the ornament in the reference image that we have in the background.



Scale it on the Z axis to match the height of the object. Then go into side view by hitting “3” on the numpad.



Add four edge loops with “**ctrl+r**” going along the Y axis. You can see in the bottom left corner how many loop cuts are currently added. Scroll the wheel to increase the number to 4.



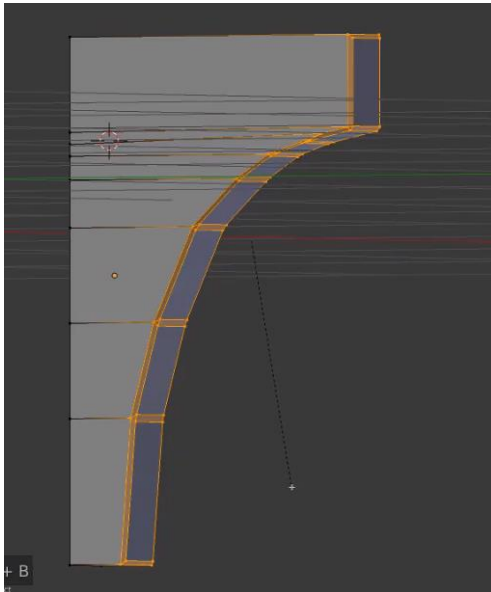
Now take the top two vertices on the left side and pull them in the negative Y direction. Keep selecting and moving vertices in this direction until you have a shape that resembles the ornaments in the reference image. Note how the curve goes out slightly from the bottom and then the curve increases in magnitude towards the top until it is almost turned 90 degrees. The arrow in the image points where the curve starts to increase.



You can add more loop cuts where the curve has a greater angle to smooth it out like the image below.



When you are happy with the shape of the curve, add a bevel to the side facing out from the building. Select the front and use “**ctrl+b**” to activate the bevel tool.

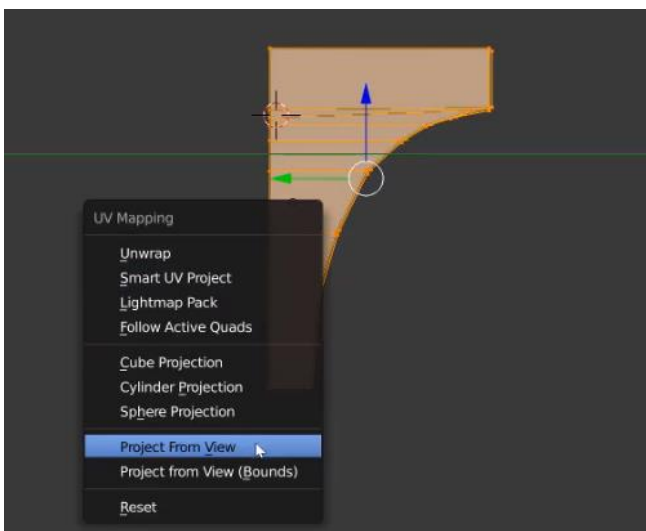


If you don't want to add the bevels that go across you can go into edgeselect mode to select exact edges with more accuracy. But this is a quite small detail, so this will be fine.

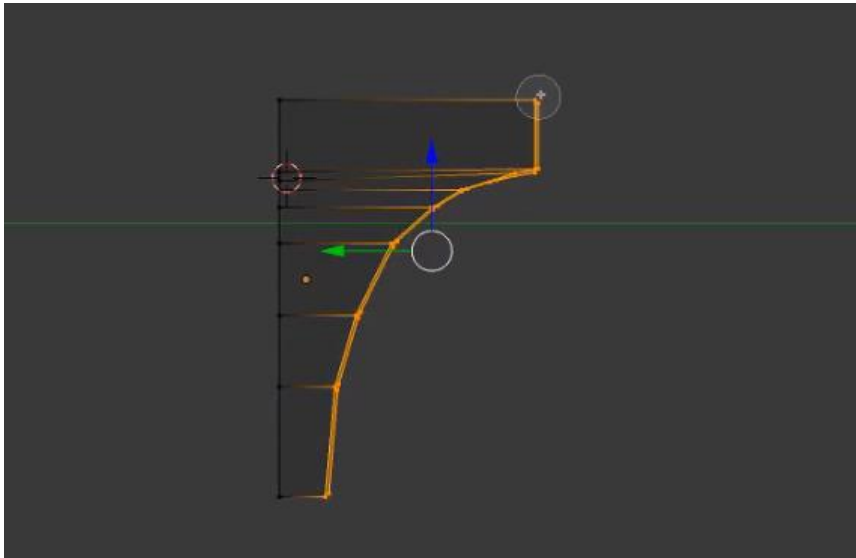
The ornament will need a material and for that we will go to the properties panel and into the material tab and select "planks_5_door" as the material. If we wanted to change the material, we would hit the number indicating how many objects are sharing this material to separate out a copy of it that we can rename and alter. In the tutorial however, we won't do this.



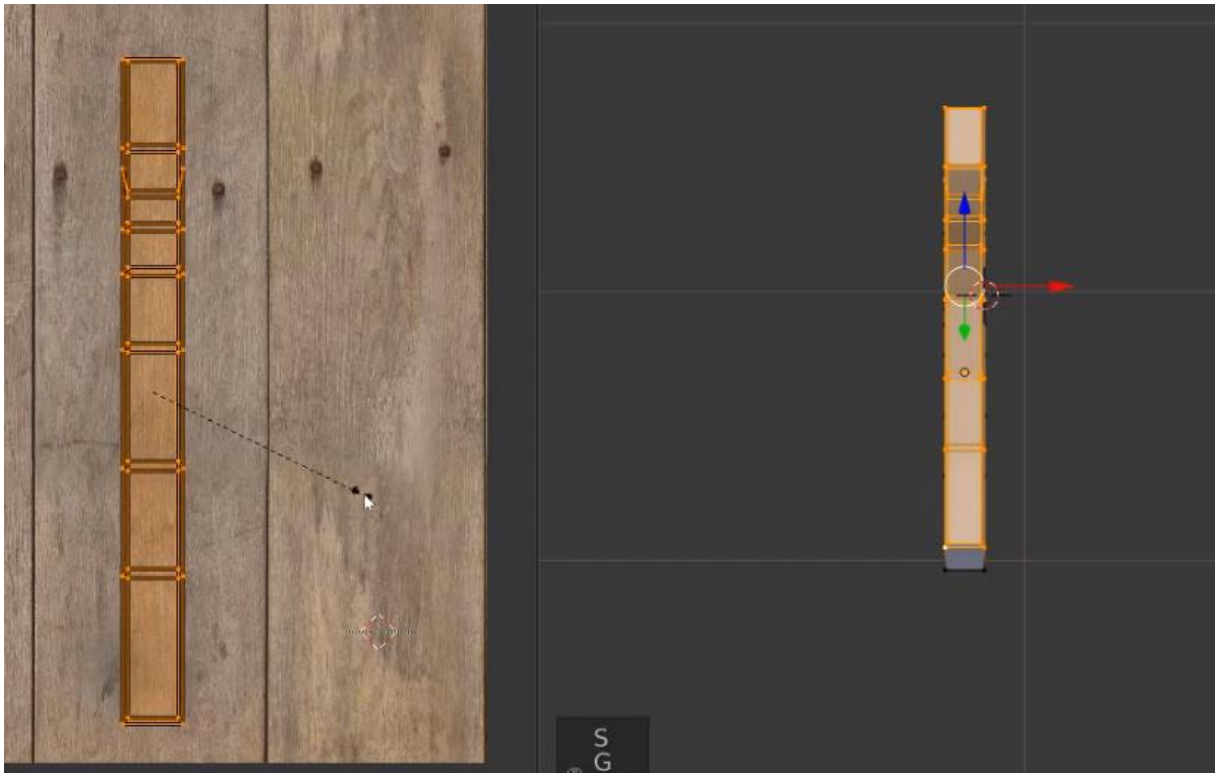
To map the material correctly we need to UV-unwrap this. Go into edit mode, select everything with "a" and then hit "u" for the UV-mapping menu. Go to the side view in orthographic mode. This time we will use "project from view" as the method.



Scale and position the UV-map on the texture so that no nails or seams in the texture are visible. Select the front of the object with box or circle select. Shortcuts are either “B” or “C”.



Go to the front view to UV-unwrap with “project from view”. Since we are trying to project a curve from the front here we will eliminate some stretching by tilting the camera. Use “**numberpad 2**” to tilt down or “**numberpad 8**” to tilt up. Not that it is the camera that we are tilting so if we tilt down we will look up and vice versa.



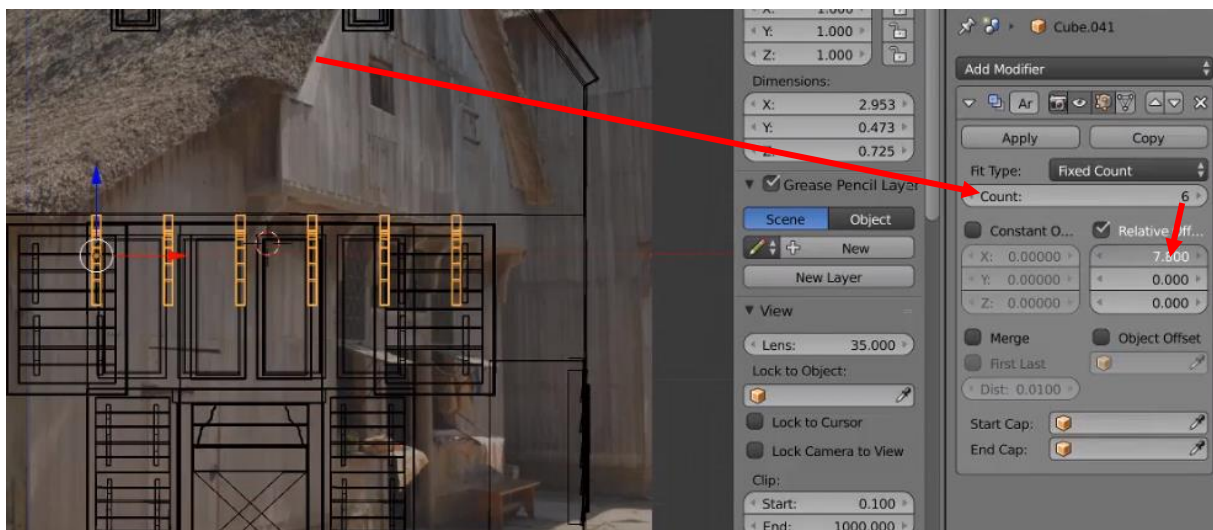
Use “project from view”, scale and move the UV coordinates until you have a good spot on the texture. Now select the bottom and use “**ctrl+numberpad 7**” to go to bottom view and use the same method for UV-mapping as before. Adjust the UV-layout of the bottom until you are happy with the looks.

Before we call the model finished we can optimize its performance a bit by removing the faces on the back since these will never be seen. Go to side view, select the back and hit “X” to delete and choose faces.

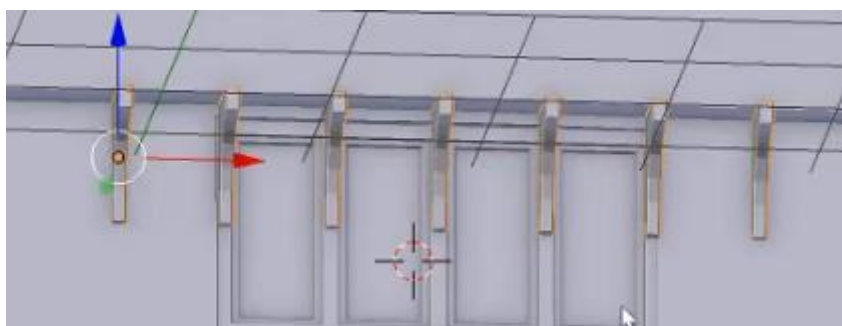
Now move the prop to the first layer and we will use the array modifier to place copies of this on the base of the building.

Look at the reference and note how there are seven of these support ornaments holding up the second floor. The middle five are evenly spread out with one window between each. Then we have two at either end that we will move manually into place after we have applied the array modifier.

Add the array modifier to your object and increase the count to seven. Move the array into position. You should position it so that the first ornament to the left when viewing from the front is on the left side of it’s window. The outer most ornament will be moved into its place once the modifier is applied. But for now, place it there, then we will move the entire array one window width to the left. Increase the relative x direction in the modifier until there is one ornament between each window.

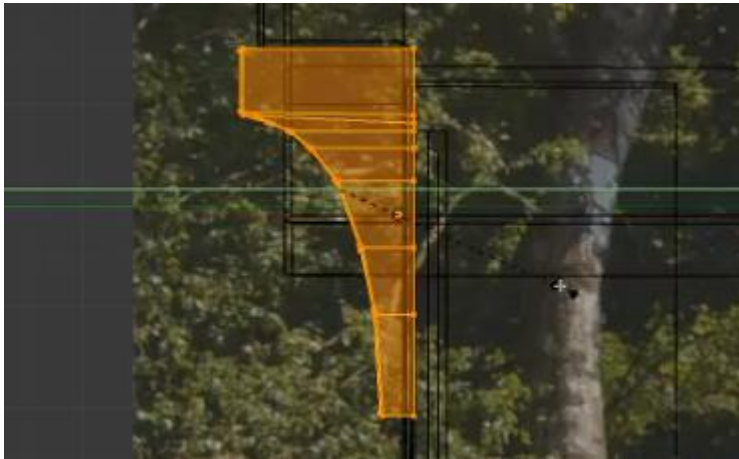


Aim for roughly this result.

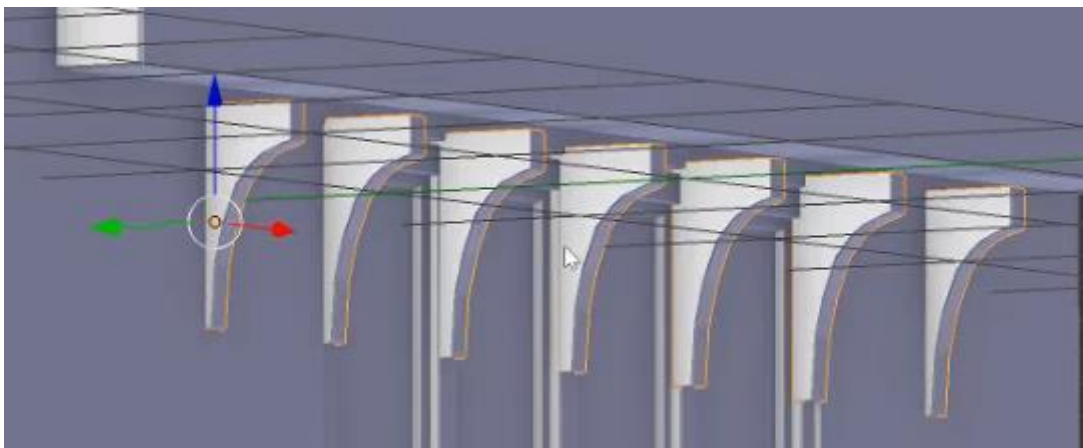


Once they are all in place we may have to scale up or down our ornament depending on how we made them from the start. Adjust the size and distance between them until you think it looks good. If you need to make small adjustments, keep in mind that you can hold “**shift**” while making numerical adjustments to fine tune the value.

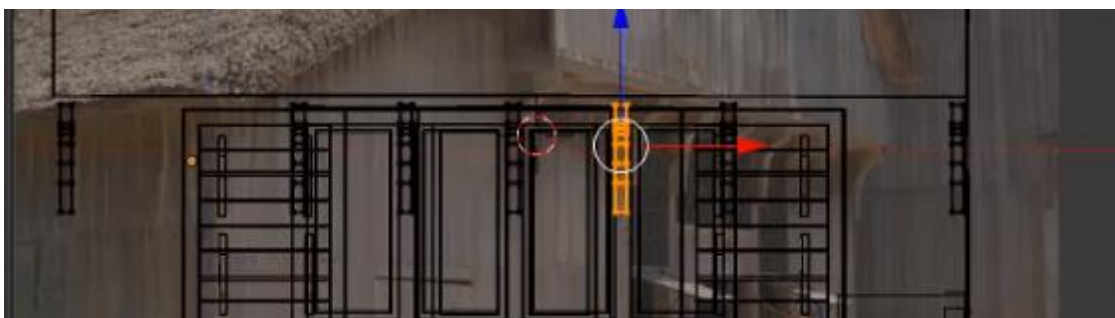
In the case of this lesson the ornaments became a bit too wide and to combat that we will select everything in edit mode before we apply the modifier and scale on the Y axis.



Between the top floor and the ornaments there is a plank that goes along. Bring the ornaments down a bit so that we can add the plank in between.



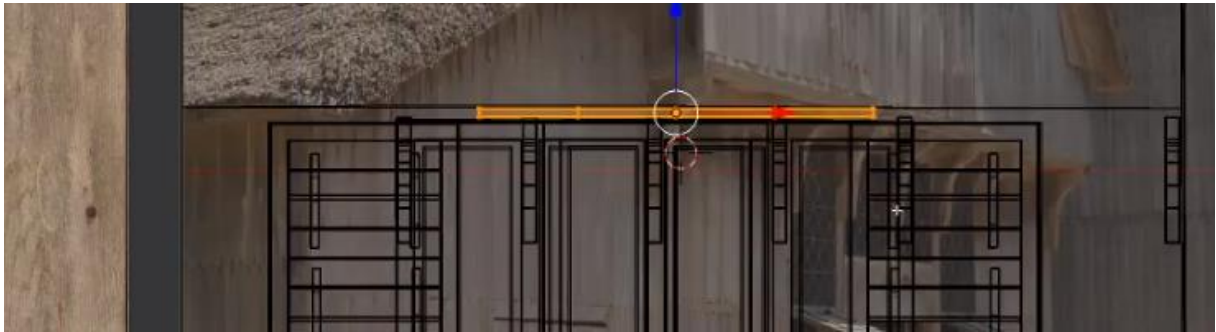
Now we can apply the array modifier and move the outer most ornaments to each edge.



When this is done, select each ornament in turn and move the UV-map to another location of the texture so that we don't see the exact same texture on each ornament. If we don't do this, it is very easy for our eyes to spot that this is a 3D modeled object and we lose some of the realism.

The plank has been made in a previous lesson. Go to layer two and duplicate the plank and bring the duplicate to layer one using the "M" hotkey to change its layer.

Position the copy between the second floor and the ornaments that we have been working on in this lesson.



Go to edit mode and use the “O” hotkey to turn on proportional editing. Scroll your mouse wheel so that the influence of the proportional edition encompasses the whole object except one of the end while you have the other end selected. Constrain the movement to the X axis.



You can also make the plan slightly thicker. Then go to the UV/Image editor and scale the UV-coordinates in the Y direction. Adjust the planks position and size until you are happy with the result.

Now this lesson is complete. But we will leave here with a challenge for before the next lesson. The rear is not yet done so you should do the same thing for the rear of the building on your own before continuing. You can decide where to put the ornaments on the other side since the window layout is different there. What do you think, should there be of these objects and where should they be placed? In the video portion of this tutorial some suggestions are given.